



GO BEYOND NEUTRAL

be climate positive

climate**positive**
design

The mission of Climate Positive Design™ is to

Provide a significant contribution to reversing global warming.

By bringing people together to remove as much carbon dioxide from the atmosphere as possible in the built environment
Through the development and sharing of tools, guidance, and resources.

Why?

The built environment contributes 40% of the world's global greenhouse gas (GHG) emissions, which must be reduced over the next ten years to prevent catastrophic, irreversible impacts to our planet.

Not only do we share the responsibility of reducing those emissions, but through landscapes, we can actively take carbon dioxide (CO2) out of the atmosphere. Through thoughtful design, implementation, and maintenance we have the opportunity to potentially remove even more than we emit – becoming Climate Positive and making a significant contribution to solving climate change.

Climate Positive Design™ (CPD) was founded in 2019 as part of a research initiative supported initially by the Landscape Architecture Foundation (LAF) Fellowship for Innovation and Leadership. The initiative is grounded in the following principles:

Leadership, Education, Empowerment, and Collaboration.

Pamela Conrad, founder and Principal of CMG Landscape Architecture leads the initiative in close collaboration with the following Advisory Partners and team members. All contributors are listed on the website www.ClimatePositiveDesign.com

Who can contribute?

Landscape architects, designers, planners, related disciplines, organizations, municipalities, developers, and property owners



Pamela Conrad
PLA, ASLA, LEED AP

"I grew up on a farm in the mid-western United States. I loved everything about the trees, plants, animals, and water that was part of our everyday life. This is why I became a landscape architect. Embedded with a deep sense of responsibility for our environment, I am committed to doing everything I can to help us make a positive impact on climate change."

CMG atelier ten

Martha
Schwartz
Partners
MSPP

LAF

LANDSCAPE
ARCHITECTURE
FOUNDATION



American Society of
Landscape Architects

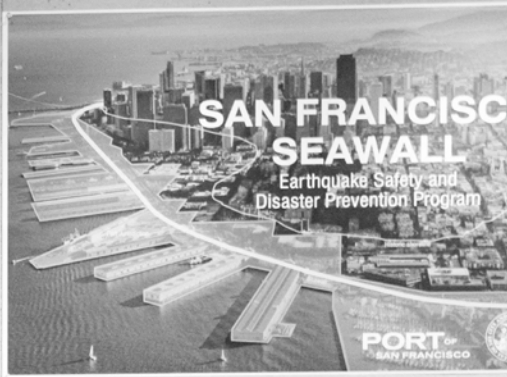


CSLA AAPC



IFLA
INTERNATIONAL FEDERATION
OF LANDSCAPE ARCHITECTS

**LACF
FAPC**



Tools. Guidance. Resources.

The **Climate Positive Design Challenge™** establishes targets for site projects in the design phase to accomplish. Rather than meeting the traditional definition of being “carbon neutral” (meaning not emitting more energy than produced by buildings), a more ambitious and appropriate goal of being Climate Positive for sites is established. It is a goal of reducing and offsetting emissions as soon as possible, getting past a neutral point, with a goal of becoming positive and taking more CO₂ out of the atmosphere than emitted.

Although current “business as usual” practices would likely show emissions greater than sequestration on site design projects, with CPD tools, guidance and resources it is possible to achieve the following:

For all site design projects in world to:

- **take more CO₂ out than they emit by the year 2030** and
- **by 2050 to take 1 gigaton of CO₂ out of the atmosphere beyond emissions**

Removing 1 gigaton from the atmosphere by 2050 would place this initiative in the top 80 Solutions listed in “Drawdown”, by Paul Hawken. “Drawdown” is a comprehensive plan that identifies strategies when combined together over the next thirty years would reduce GHG concentrations on an annual basis, thus reversing global warming.

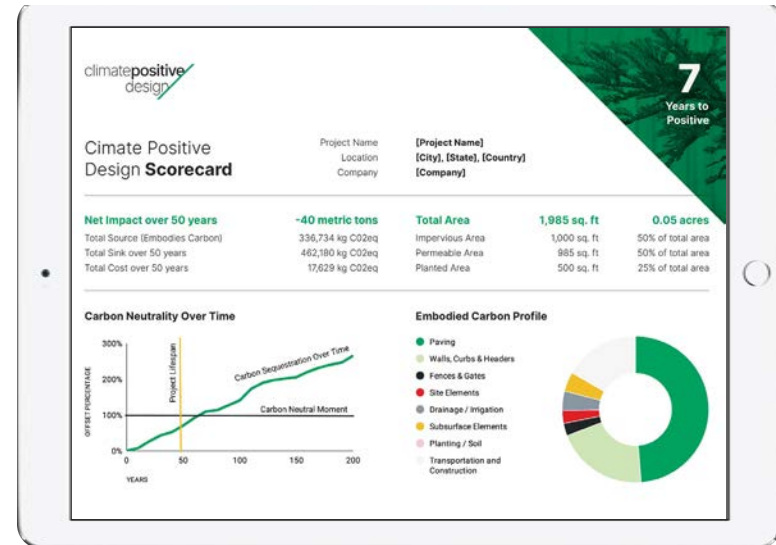
Targets are established as follows:

- 5 years to positive for parks, residential, on-structure, mixed-use or campus developments
- 20 years to positive for streetscapes or plazas

Case study examples and a design toolkit is provided on the website www.ClimatePositiveDesign.com

To meet the goals of the Challenge users log projects into the web-based application called the **Pathfinder™**. By inputting basic material and plant quantities along with maintenance plans, it calculates embodied and operational carbon emissions along with carbon sequestration. The time it would take for the project to offset it's emissions is calculated giving the user a Climate Positive score, and the Pathfinder™ provides guidance on ways to reduce emissions and increase sequestration to improve their score and meet the goals of the Challenge.

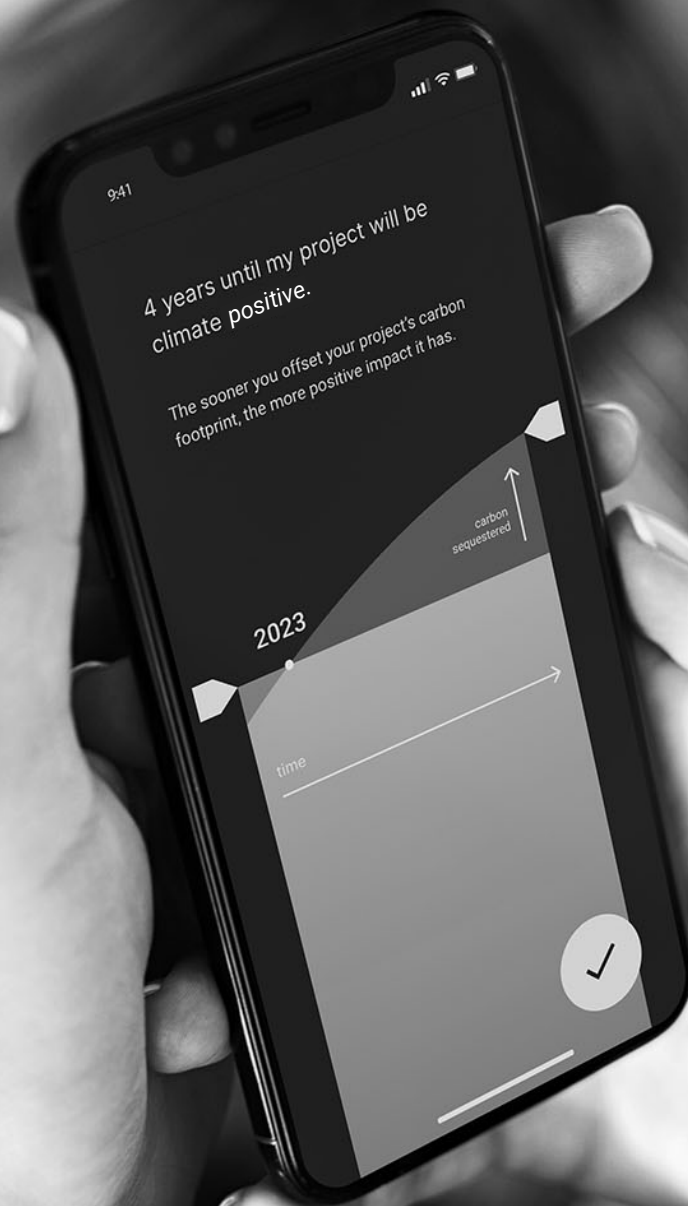
A scorecard is provided that can be shared with others and projects can be updated at any point in time.



The methodology and metrics have been evaluated and confirmed by the environmental consulting firm Atelier Ten, sequestration data is derived from the US Forest Service and embodied carbon values are from the Athena Impact Estimator. A full report is available on the website.



**Athena
Impact Estimator
for Buildings**



9:41

4 years until my project will be
climate positive.

The sooner you offset your project's carbon
footprint, the more positive impact it has.

2023

time

carbon
sequestered



Impact

The **Climate Positive Design Challenge™** launched on September 30, 2019 to culminate a month of the largest climate activism events in history. The statistics from the first forty-five days were collected and shared at the 2019 American Society of Landscape Architecture (ASLA) Conference.

Active tracking, recording, and analysis by a data analytics expert will allow for understanding a comprehensive global impact of the initiative's impact on climate change – a contribution that has been relatively unknown to date.

The Advisory Partners for the initiative will review the data collected on a semi-annual basis going forward and advise on whether the targets should be modified and how well contributors are meeting the goals.

Although the data collected in the early stages of any initiative carry the highest level of uncertainty possible, the statistics from the first forty-five days prove to be a promising glimpse into the potential impact of this initiative. As recorded, the impact of the projects logged within the first forty-five days shows:

10 Year Impact

2,710,361 metric tons of CO₂
sequestered beyond emissions

30 Year Impact

4,652,417 metric tons of CO₂
sequestered beyond emissions

In the first 45 days ...



332
PROJECTS
LOGGED

CUMULATIVE IMPACTS EQUAL



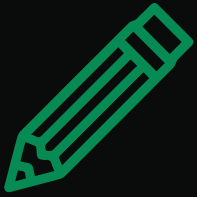
128,742 TREES
TO BE
PLANTED

=



142,278 CARS
TAKEN OFF THE ROAD IN 10
YEARS

501,908 CARS
TAKEN OFF THE ROAD IN 30
YEARS



**45 COUNTRIES +
313 CONTRIBUTORS**
HAVE TAKEN THE CHALLENGE



23,030
PAGE VIEWS



3,641
PEOPLE REACHED



242
COMPANIES



80 COUNTRIES REACHED
OUT OF 195 IN THE WORLD

Donate

Climate Positive Design™ needs your support!

To maintain and improve the resources developed to date, CPD is seeking donations to support the following:

1. RESEARCH

- Advance data on carbon sequestration
 - Natural environments (forests, wetlands, grasslands, peat bogs)
 - Expansion of species specific data on plants other than trees (woody shrubs, perennials, vines, lawns)
 - Soil carbon
 - Composting
- Developing plant palettes to maximize carbon sequestration and co-benefits
- Expand materials embodied carbon of materials
- Further information on operational carbon of landscapes
 - Carbon release from soil disturbance
 - Fertilizers
 - Maintenance
 - Lighting
- Collaboration with experts, academia

2. TOOLS

- Pathfinder™ App Maintenance and Advancement
 - General user interface improvements
 - Incorporation of more data
 - Incorporation of products/Environmental Product Declarations
 - Expansion of time capture points

3. GUIDANCE

- Climate Positive Design Challenge™ Maintenance/Advancement
 - Data Collection/Review/Analysis
- Climate Positive Design™ Online Resources
 - Checklist
 - Additional case studies of products that have incorporated strategies

4. EDUCATION/COMMUNICATIONS

- Online webinars
- E-blast communications
- Universities and schools
- Conferences
- Collaboration with manufacturers
- Incorporation into rating programs
- Firms and organizations
- Pilot projects/installations
- Soil and above ground sequestration monitoring
- Communication tools / installations within the landscape to tell the carbon story

To donate, visit the GoFundMe page:

<https://www.gofundme.com/f/climate-positive-design-initiative>



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